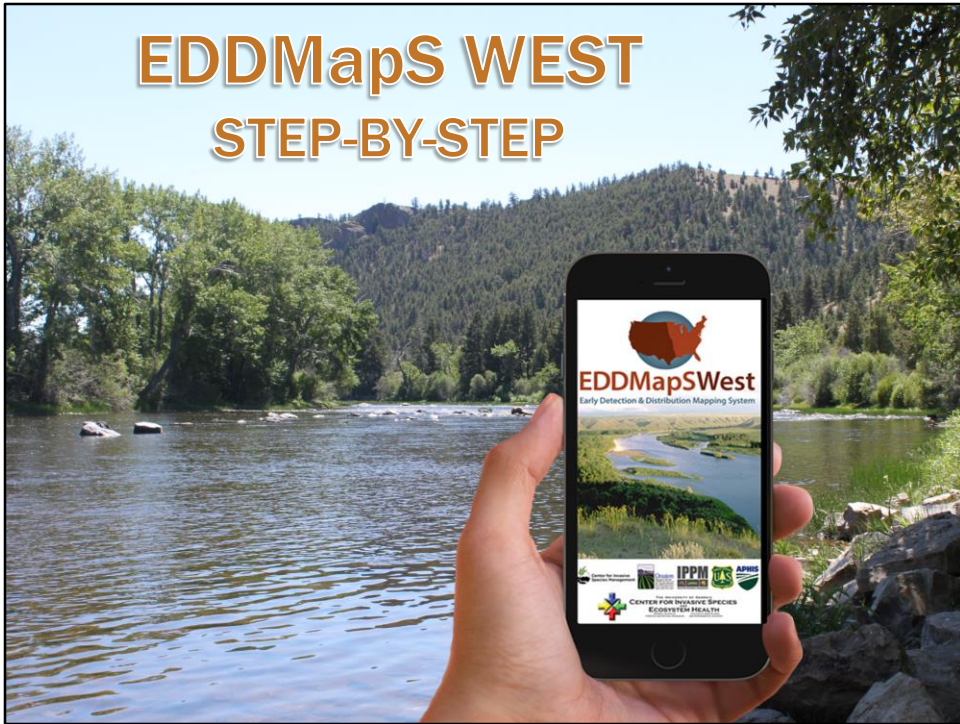


EDDMapS WEST

STEP-BY-STEP



WHAT IS EDDMapS?

- Electronic EDRR tool (e-mail alerts)
- State/County Distribution Maps
- Google Maps Interface for Point Distribution
- Large Scale Cooperative Management of New Invasive Species
- Custom Queries and Reports

WHY USE EDDMapS?

- Fast, Free and Easy
- Ready to go – today!
- One database for all weed data
- Dichotomous key specific to Montana
- Meets national invasive plant management standards
- Data can be output to meet your needs
(CSV, KML, CPX, Shapefile)

WHY WAS IT DEVELOPED?

To get a more accurate picture of the distribution of invasive species across North America

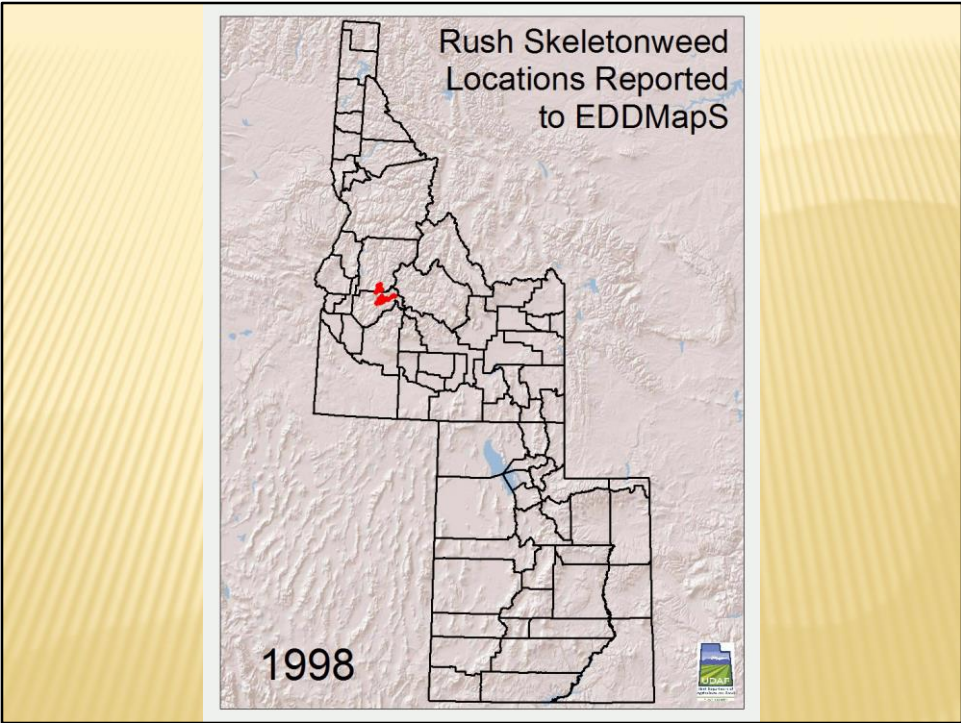
- Create inexpensive tools for managers
- Create a space for existing data and new data
- Ability to have evolving data

GOALS OF MAPPING

- ✖ Set priorities for prevention/eradication/control
- ✖ Get funding for implementation
- ✖ Track progress toward goals

LOCAL TO NATIONAL NEEDS

- ✗ Absence of data for complete distribution
- ✗ Data from all sources shared in one place
- ✗ Ability to look across county/state lines
- ✗ Suitability maps



OBSERVATIONS 2015

- × ~ 41 reports/day
- × 269 reports in one day (highest number)
- × Total of 14,514 reports
- × Total of 2,048 reporters

OBSERVATIONS 2016

- × ~ 181 reports/day
- × 1,518 reports in one day (highest number)
- × Total of 44,378 reports
- × Total of 1,776 reporters

EDDMapS West Stats

13,994 Reports – 4,778 in 2016

1,933 Web Reports - 608 in 2016



Bulk Data

221,898 Records

36,057 in 2016

HOW IT WORKS?

- ✕ Download App
- ✕ Log-in
- ✕ Create and submit a report
- ✕ Verification process
- ✕ Uploaded to website
- ✕ Manage reports

FREE DOWNLOAD



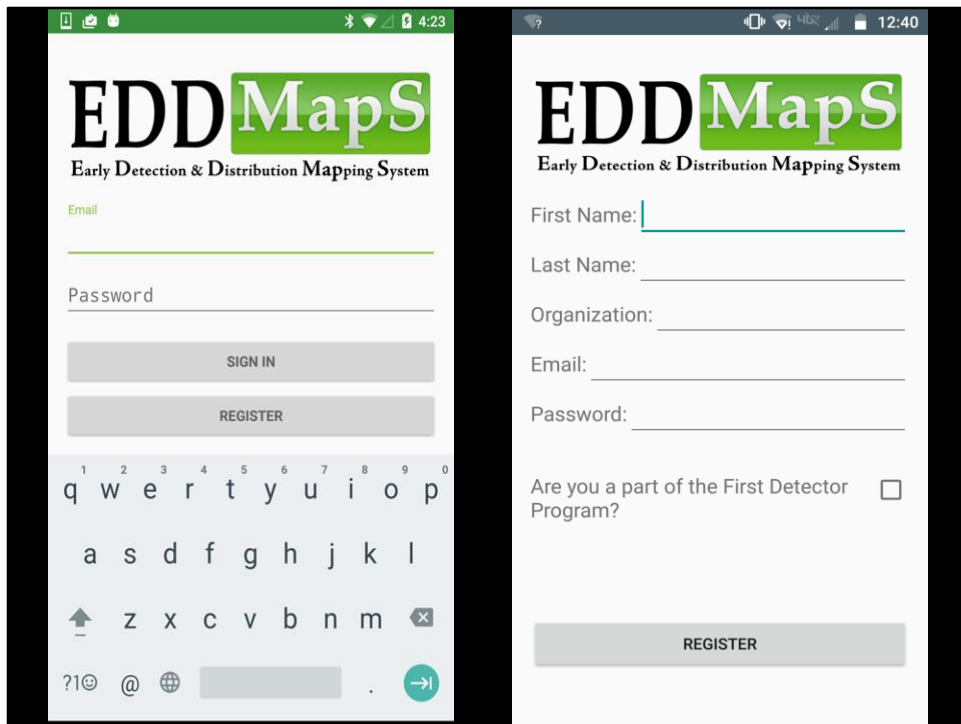
App Store



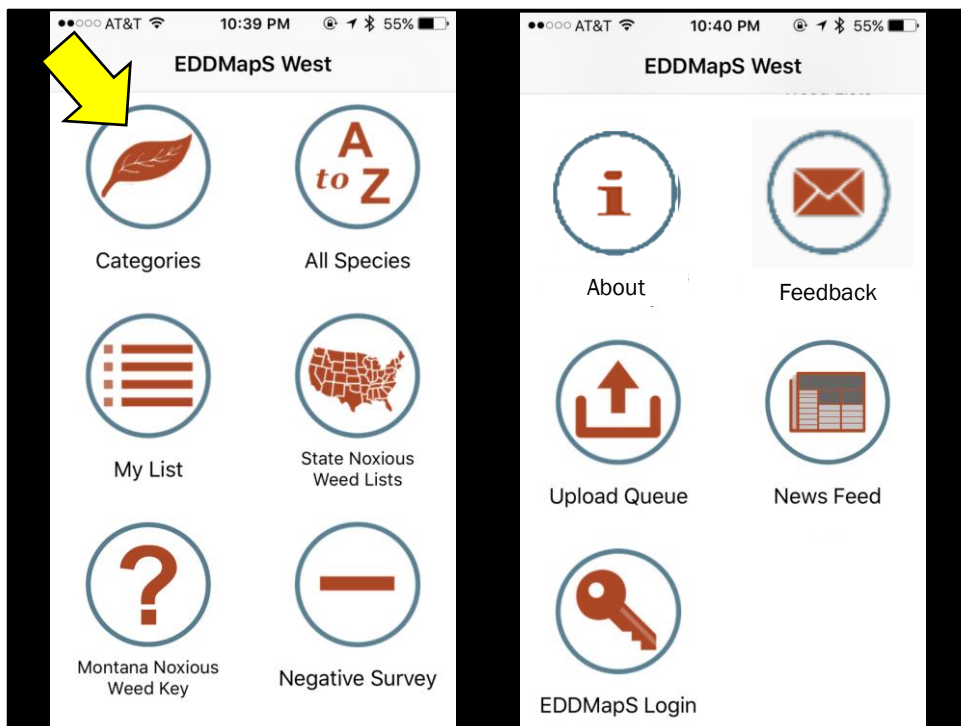
Google play

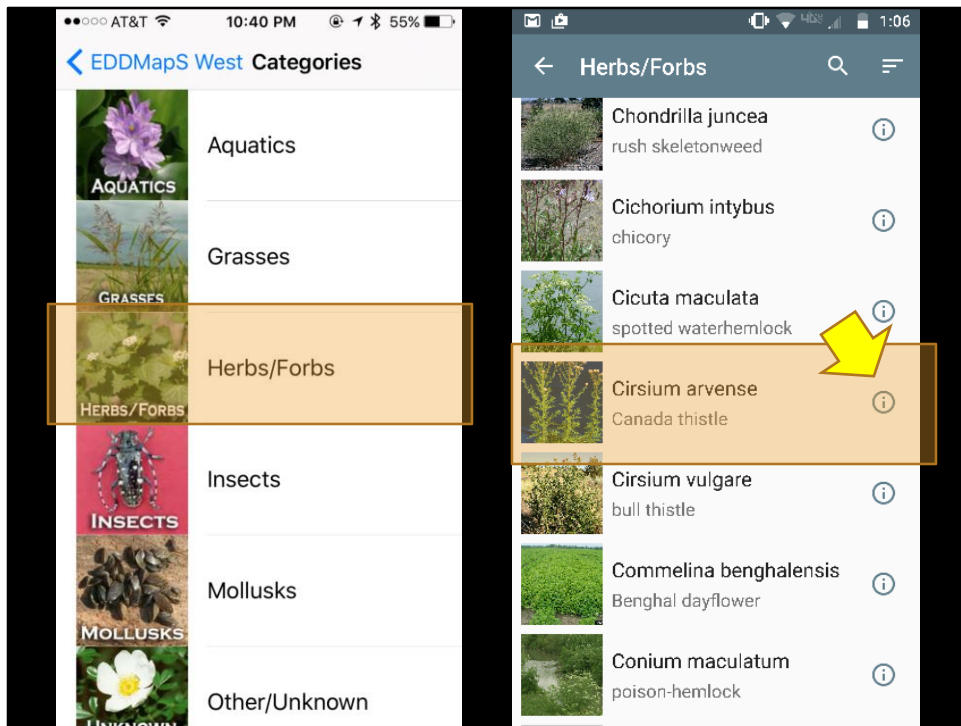
Warning!!
It's big





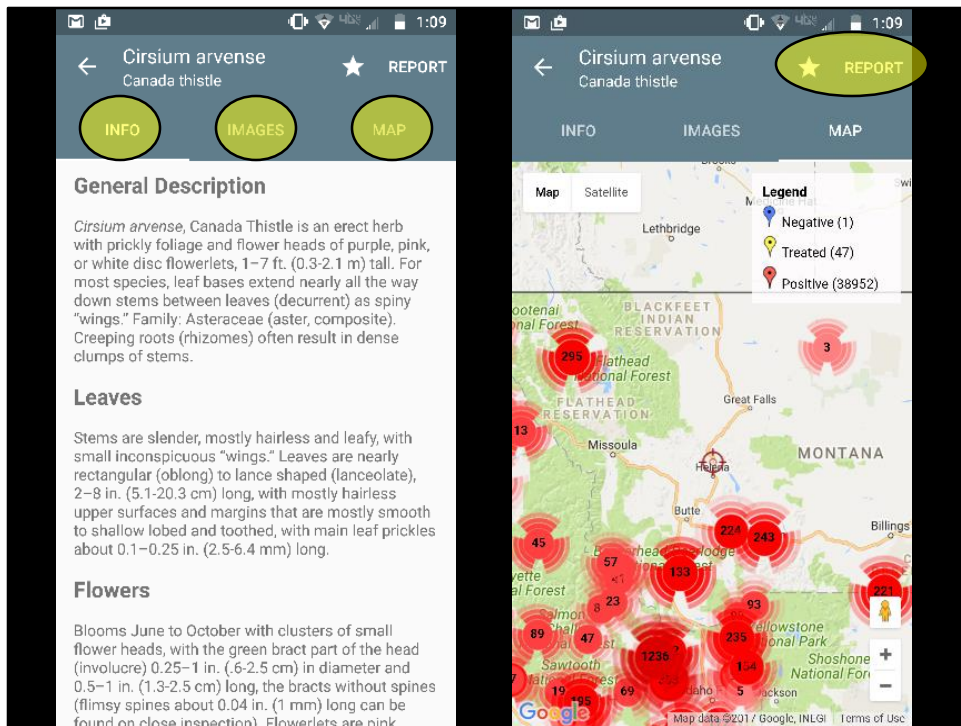
Register once for both the online and app version
Username is your email
You must register to submit reports for verification





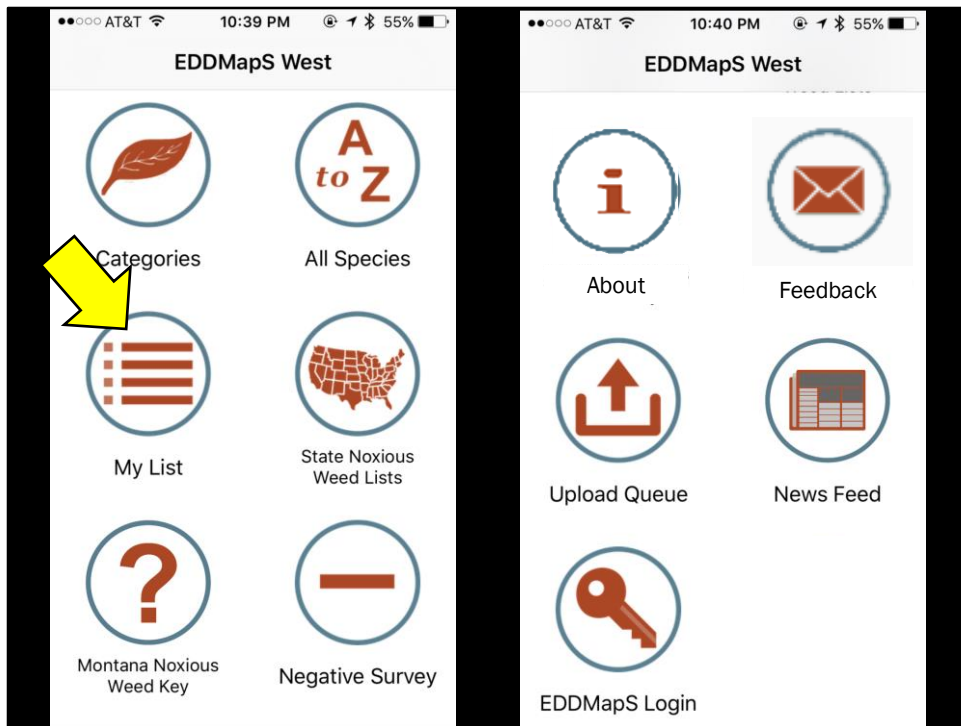
Categories

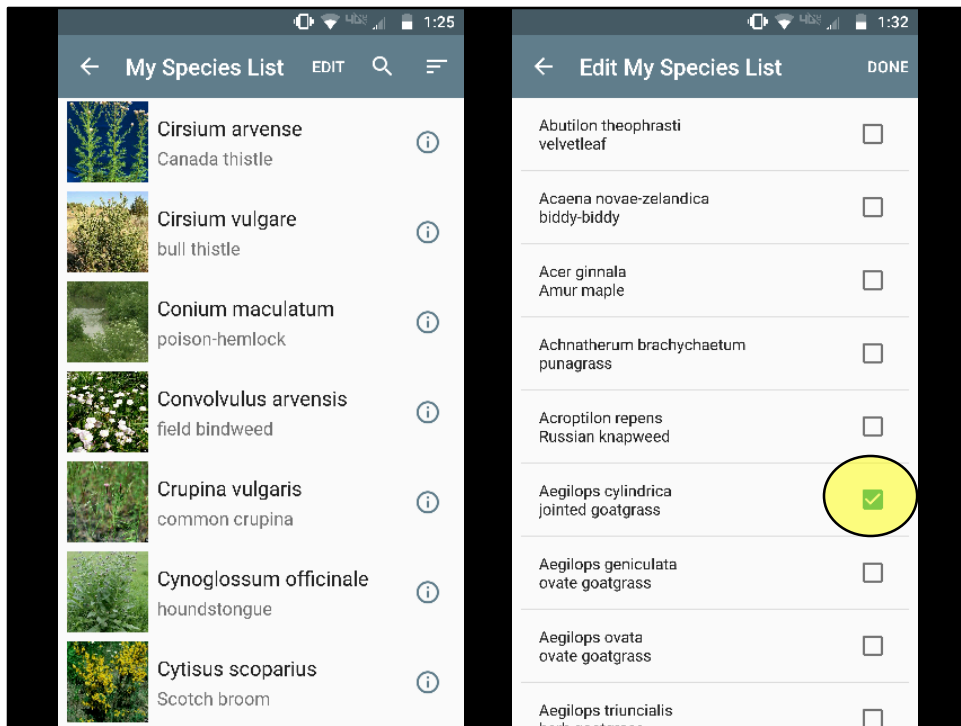
- Choose from list to get a species list
- Picture and Name of species take you to Report
- Click the "I" for more info



More Info

- Info for Description
- Images for Pictures
- Map for Distribution Map (existing points with colored records)
- Report to go straight to Reporting Form



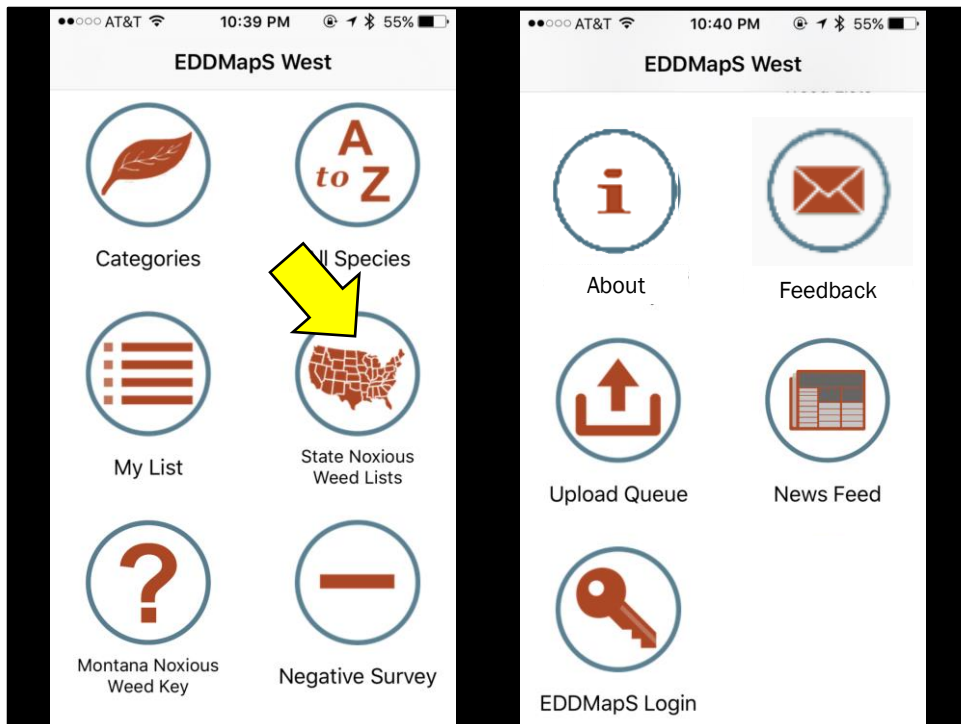


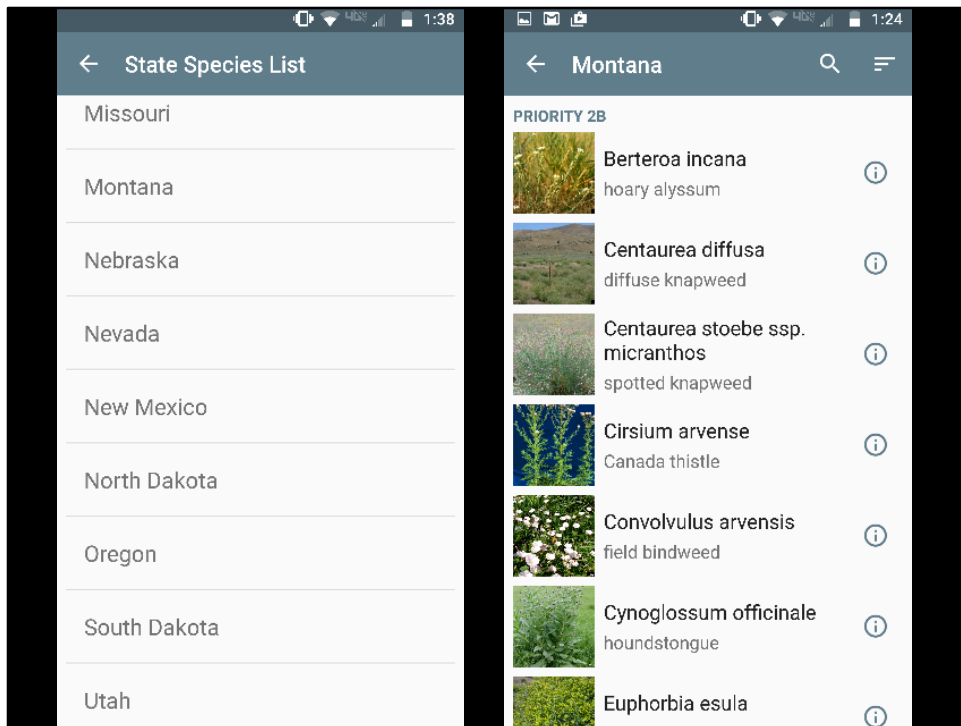
Create a My Species List (quick go to for weeds you care about)

- Can get quick info
- Can get to report form faster

To Add/Delete weeds from list

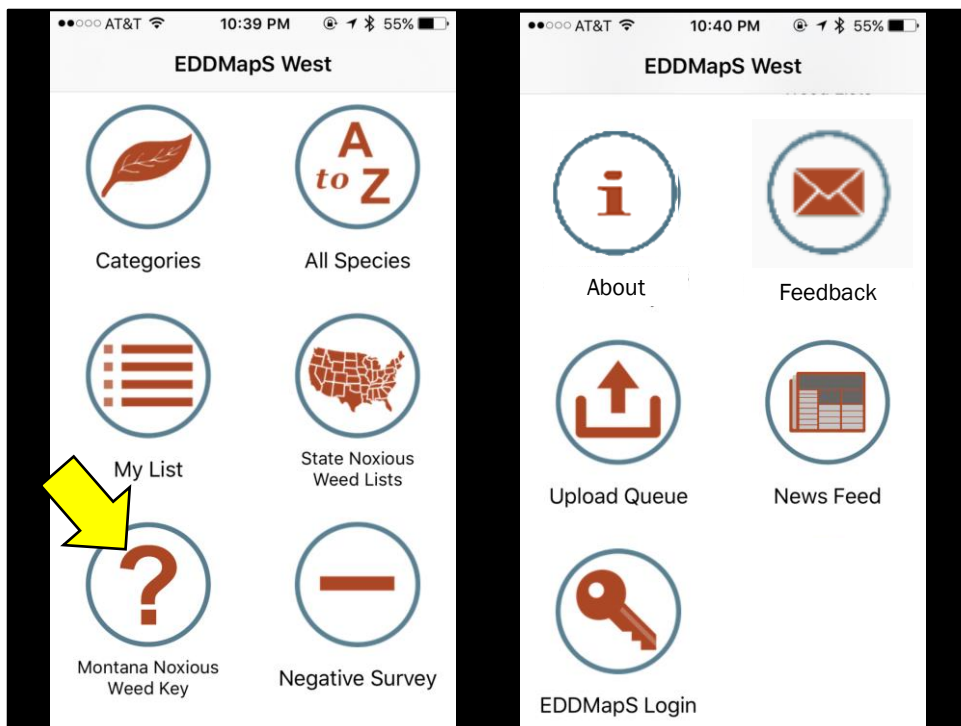
- Click on checkbox

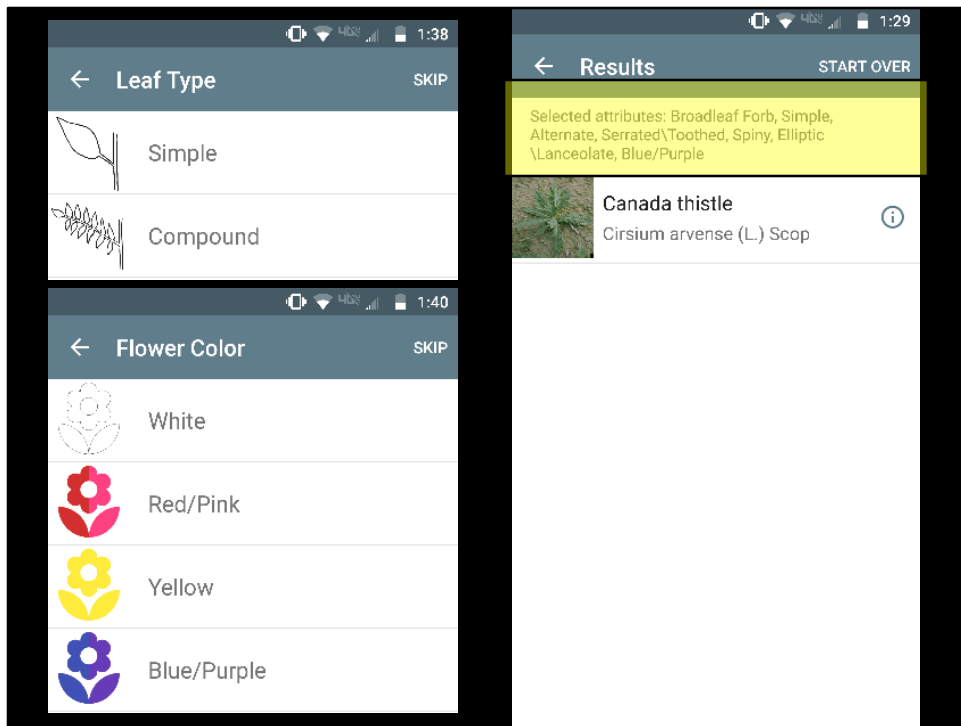




Montana Priority List

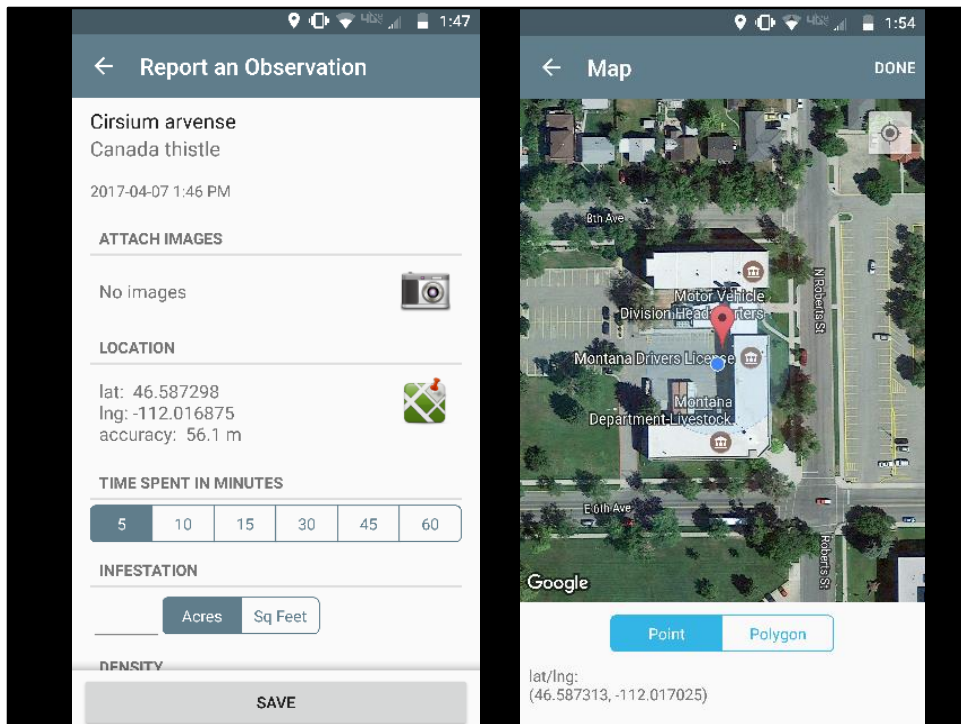
- Also has lists from 15 other states
- Montana's will be updated to include the three new weeds (common buckthorn-2A, medusahead-1A, Eurasian watermilfoil hybrid- as complex)





Montana's Dichotomous key

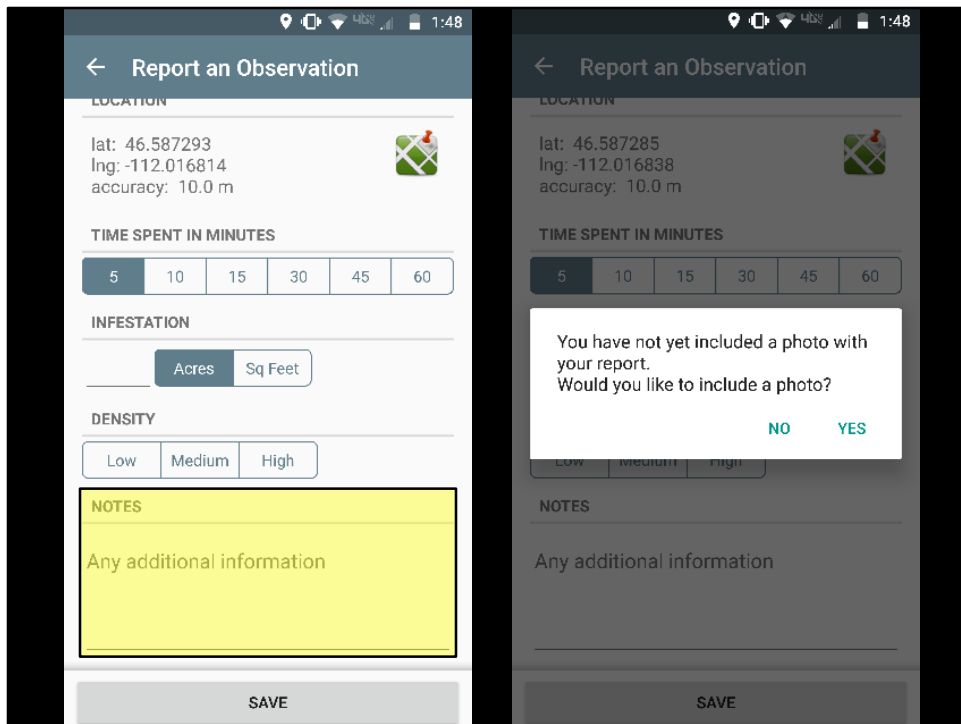
- unique to Montana
- Jane Mangold from MSU helped design the key
- Pick attributes of the plant to narrow down your search



Report Form

- Take Pictures (more than one is better)
- Phone automatically records lat/Lng
- Click on the Map to draw a polygon (uses Google Maps so must be in service)
- *if there's no service, the app will record a point at your lat/Lng position when Queue is uploaded
- *report can be changed on the website later if needed
- Record the time spent in locating the infestation (not really for our use)
- Record the estimated size of infestation

-



Report Form (Continued)

-Record the density of the infestation

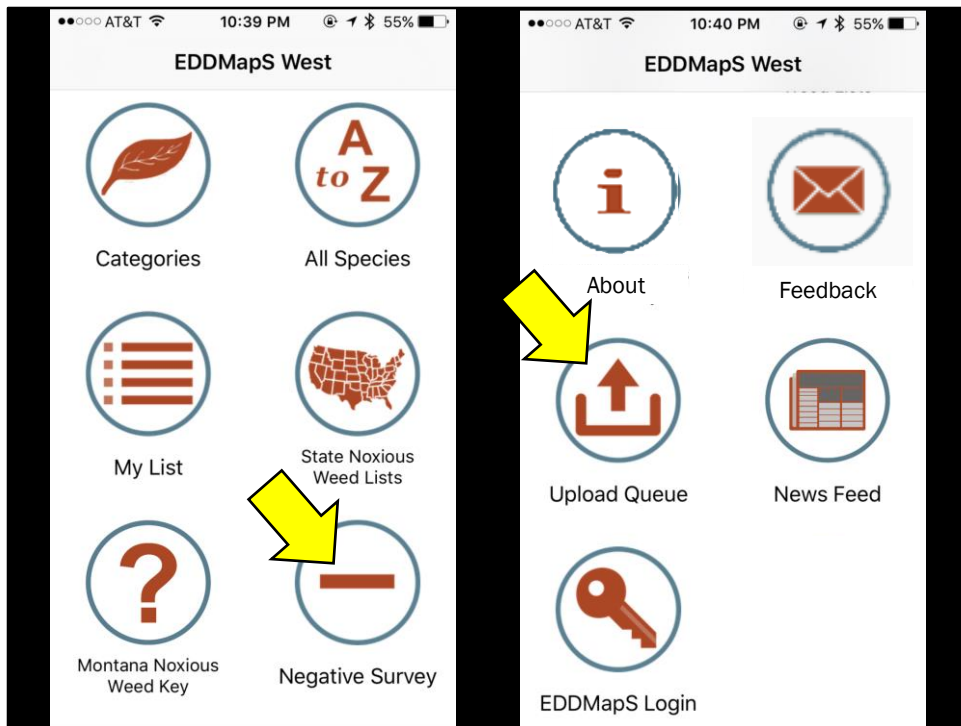
-Notes...

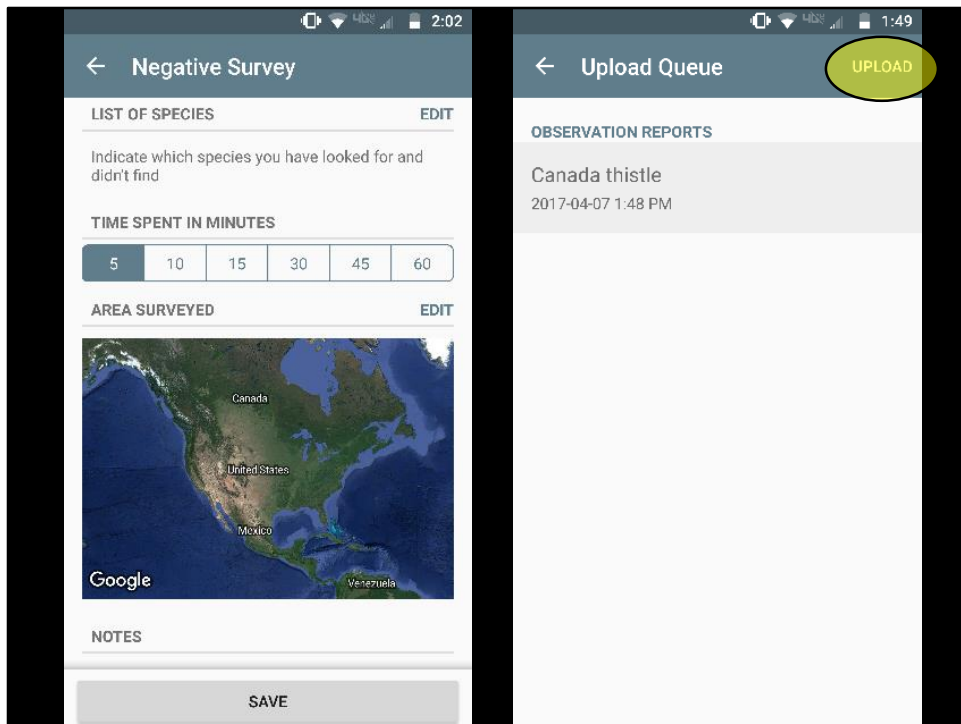
*if this is a test- write TEST

*can record windspeed, observations of site, other observers, ect.

-Click Save

*system will prompt you to upload a picture—VERY important for verification





Negative Survey

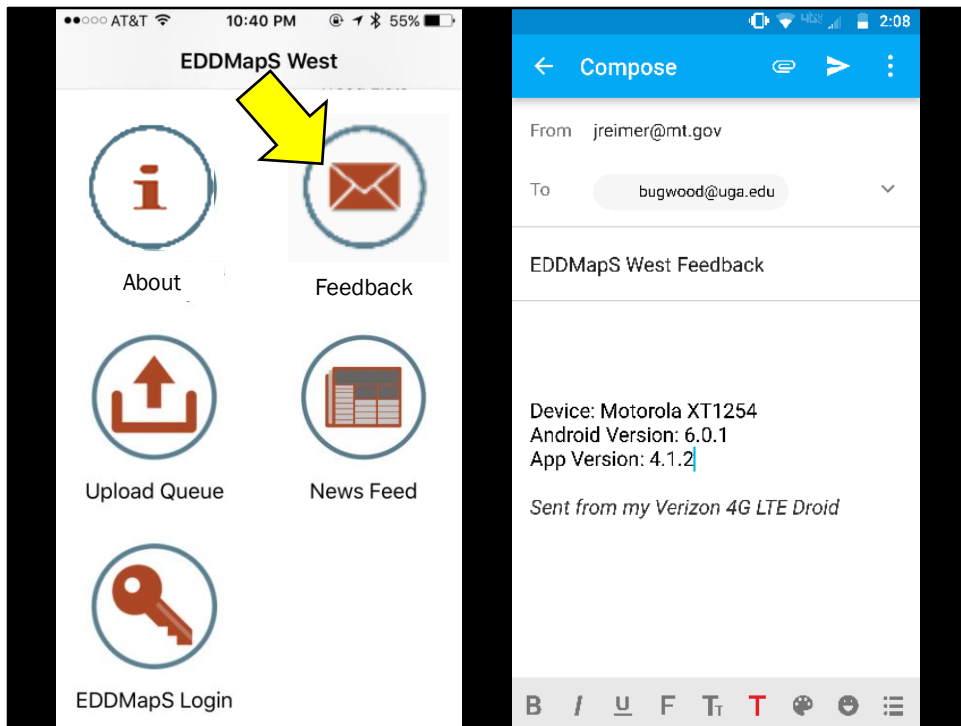
-If you have crews looking in spots that have had weeds reported in the past

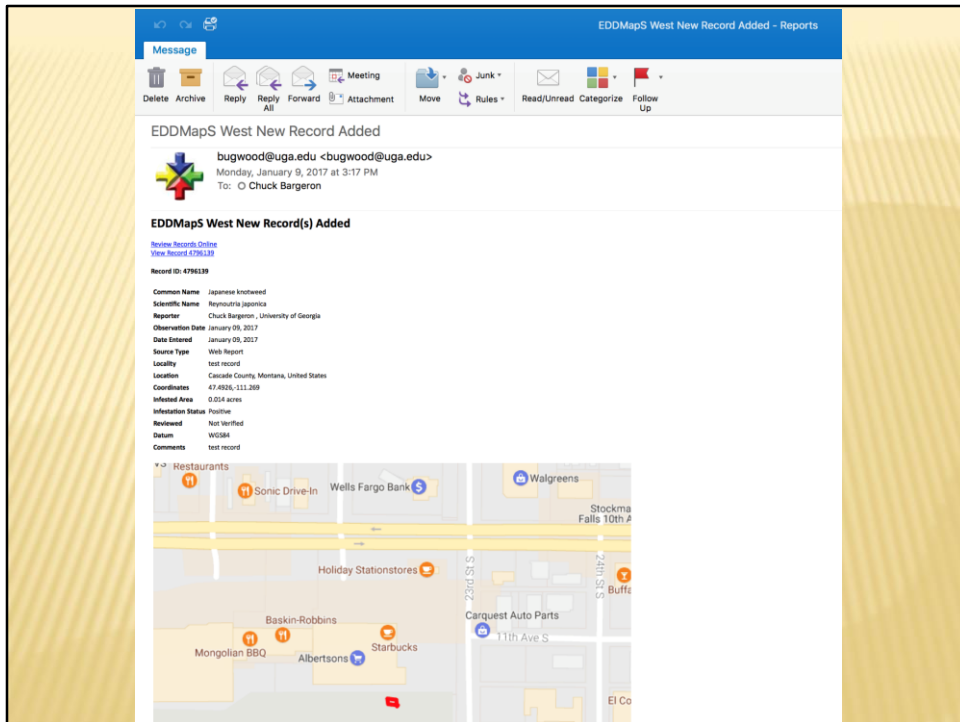
Upload your Reports

-In Upload Queue...Click Upload

*must have cell or wifi service

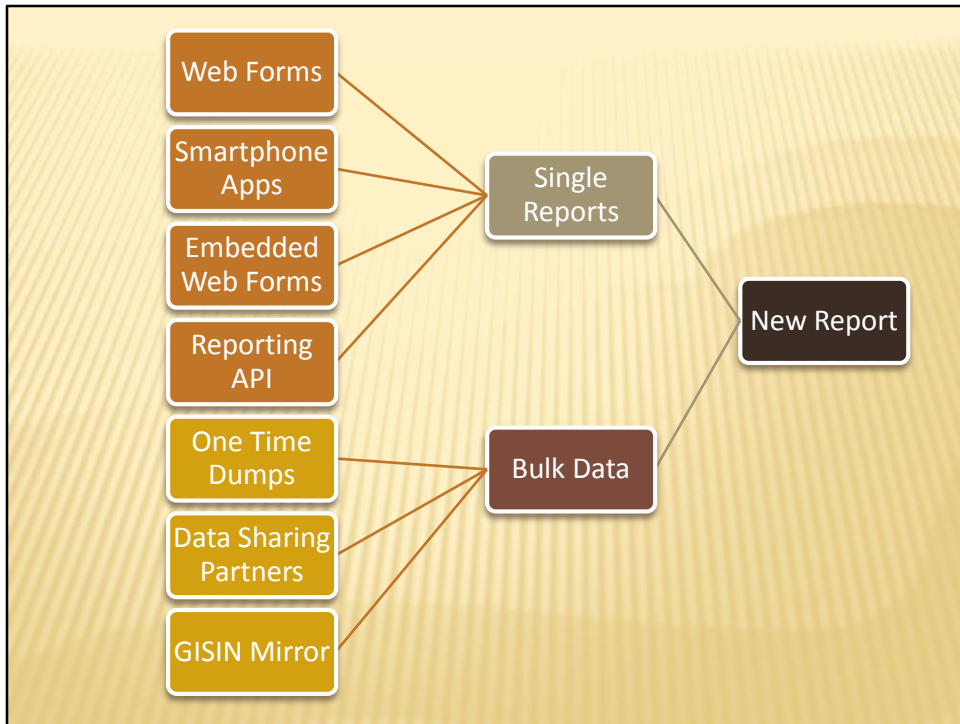
*an email is sent to the verifier for the area or State (Dave Burch until it grows)






Verification Email

-If Dave doesn't know who the record is from, he will contact the county weed coordinator or extension agent to verify




NWTF
Montana Department of ...
WSSA
MSU Bulletins
Google
SABHRS
WebGrants
MTPlants
MWCC
406running
MT LEG
MNHP


EDDMapS West
 Early Detection & Distribution Mapping System

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EDDMapS West



EDDMapS West was originally developed and launched for the six Missouri River Watershed Coalition headwater states of Colorado, Montana, Nebraska, North Dakota, South Dakota, and Wyoming in September 2010.

Thanks to tremendous interest throughout the West, and support from the Montana Noxious Weed Trust Fund and the US Forest Service-State and Private Forestry Program, the system quickly expanded to include seven additional western states (Idaho, Kansas, Missouri, Nevada, Oregon, Utah, and Washington) in 2011.

EDDMapS West is:

- ✓ Fast and easy to use - no knowledge of GIS required
- ✓ Allows for reporting of select invasive plant species in the western states
- ✓ Automatically alerts state weed coordinators when reports are entered
- ✓ Automatically alerts EDDMapS West users of verified reports
- ✓ Generates distribution maps for reported species
- ✓ Links to Invasive.org information and images

Early detection of new invasive species infestations and rapid, coordinated responses are needed to eradicate or contain invasions before they become too widespread and control becomes technically and financially impossible. Prevention and early detection/rapid response efforts are most effective when information is shared at the regional level.

It is going to take all of us- land owners, land managers, universities, recreationists, agency personnel, and concerned citizens- working together and sharing information as quickly as possible, to keep ahead of new invaders. We encourage you to use EDDMapS West to report sightings of invasive species; and we also encourage additional western states to join the EDDMapS West effort.

Statistics


902,495 County Reports
725,869 Point Reports
2,424 Species

Recent Reports in EDDMapS West

- ✓ common viper's bugloss by Shane Amott in Ravalli County, Montana
- ✓ African mustard by Katie Kleinick in Clark County, Nevada
- ✓ African mustard by Katie Kleinick in Clark County, Nevada
- ✓ spotted knapweed by Tim Higgs in Grand County, Utah
- ✓ Russian knapweed by Dave Voth in Eureka County, Nevada
- ✓ More Reports



Educational Resources


- ✓ EDDMapS West Website Instructions
- ✓ EDDMapS West App
- ✓ EDDMapS: Invasive Plant Mapping Handbook
- ✓ EDDMapS West Training Video
- ✓ EDDMapS West Training Video August 2013



Smartphone App

EDDMapS West Provides a means of reporting new sightings of select invasive species in Coalition States, a mechanism for alerting appropriate individuals to the reports, and generates distribution maps for the reported species.



Create State or Species Alerts

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*First name

First Name

*Last Name

Last Name

Organization

Organization

Email address

Email

Verify Email address

Re-enter Email

*Password

Password

*Verify Password

Reenter password

Unit / Department

Unit / Department

Phone Number

Phone Number

Are you a First detector (?)


No☒

Country

United States

States

☐ I'm not a robot


reCAPTCHA
Privacy - Terms

Become a participant!

Login

Email/Username

Password

☐ Remember Me

Log In

Forgot Username or password?

Sign up

EDDMapSWest
Early Detection & Distribution Mapping System

Home Report Sightings Distribution Maps Species Information Tools & Training My EDDMapS About sign out

Click on the type of species you would like to report.

PLANTS INSECTS DISEASES WILDLIFE

Report an Invasive Plant Occurrence

Red fields are required.

Species

Pest (?):

Canada thistle (Cirsium arvense)

Canada

Canada bluegrass (Poa compressa)

Canada goldenrod (Solidago canadensis)

Canada thistle (Cirsium arvense)

Infested Area (?):

Select One

Habitat (?):

Select One

Abundance:

Select One

Canopy Closure (?):

Select One

Plant Description:

☐ Mature ☐ Sapling/Immature ☐ Seedling/Rosette ☐ In Flower ☐ In Fruit ☐ Seeds ☐ Dormant/Dead ☐ Unknown

Report Sightings

-Click on Plants

-Fill out report

*Choose a species from dropdown

*Only the fields with Red must be completed, but the more fields you can fill out the better

*The “?” mark will give you extra information

Location

State:

County:

Latitude (?):

Longitude (?):

Must be expressed in Decimal Degrees (XX.XXXX), and DATUM NAD83/WGS84.

Must be expressed in Decimal Degrees (XX.XXXX), and DATUM NAD83/WGS84.

lat/long conversion tools

place marker at position

clear map

Location Description/Nearest Address:

Ownership:

Select One
☒

- If reporting infestation on private land, be sure to have landowner's permission.

Private (?):
☐ Yes
☒ No

Images

Image 1:
Choose file

Image 2:
Choose file

Caption:

Caption:

Photo by:

Photo by:

Report Sighting (Continued)

- Can zoom to location by clicking State and County or inputting lat/Ing
- Tools at top of map for a point, line, or polygon
- Ownership- if private property...get permission first
- *if owners want information kept private click Yes below
- You can upload up to 5 pictures of the weed/infestation

Additional Information

Comments:

Identified by:

Voucher Specimen Made (?): ☐ Yes ☒ No

Location of Specimen:

Submit Report

PLANTS

INSECTS

DISEASES

WILDLIFE

Report an Invasive Plant Occurrence

Thank You for Your Submission to EDDMapS.

Your report has been forwarded to your state and/or county verifier (or regulatory agency if appropriate) for review. The record will remain confidential until confirmation and will not appear on distribution maps and reports until it is reviewed.

Your Record ID is 4796139

[View this Record in EDDMapS](#)
[Manage Your Records](#)
[Return to Submission Form](#)

Report Sightings (Continued)

- Add any comments like "TEST" if applicable
- Submit report



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Create Alerts

State

County

Select a Division

Select a Category

Select a subject

☐ New Only (?)

[Create Alert](#) [Clear](#)

Manage Alerts

Search:

Alert ID	New Records Only	Division	category	Location	Species
No data available in table					

EDDMapS

Early Detection & Distribution Mapping System

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sign out

Overview

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Are you sure you want to delete the record below?

Yes

No

yellow starthistle

Centaurea solstitialis L.

USDA PLANTS Symbol:CESC

Invasive Plant Atlas

Species Information

States

Counties

Points

List

Record ID

4499962

Location Information

Location

Yellowstone County, Montana, United States

Coordinates

45.769,-108.5

Coordinate Uncertainty

8 Meters

Infestation Information

Density

Low

Infested Area

0.5 Acres

Infestation Status

Positive

Reporter Information

Reporter

Jasmine Reimer, MT Dept. of Agr.

Observation Date

April 27, 2016

Date Entered

April 27, 2016

Date Updated

April 27, 2016

Source Type

Android

Species Information

Verification and Review

Verification Method

Bulk Verified

Reviewed

Verified

Reviewer

dave burch

Date Reviewed

April 29, 2016

Survey Information

Datum

WGS84

Comments

test

Collection Time

5

Distribution Maps

Click on each species to view distribution maps.



Plants



Search:

Subject Name	Scientific Name	Records	View
Canada thistle	<i>Cirsium arvense</i>	41,824	State County Point List
Dalmatian toadflax	<i>Linaria dalmatica</i>	36,875	State County Point List
squarrose knapweed	<i>Centaurea virgata</i>	34,351	State County Point List
Scotch broom	<i>Cytisus scoparius</i>	23,425	State County Point List
bull thistle	<i>Cirsium vulgare</i>	22,618	State County Point List
musk thistle	<i>Carduus nutans</i>	21,198	State County Point List
common St. Johnswort	<i>Hypericum perforatum</i>	20,160	State County Point List

Canada thistle

Cirsium arvense (L.) Scop.

USDA PLANTS Symbol:CIAR4
Invasive Plant Atlas
Species Information

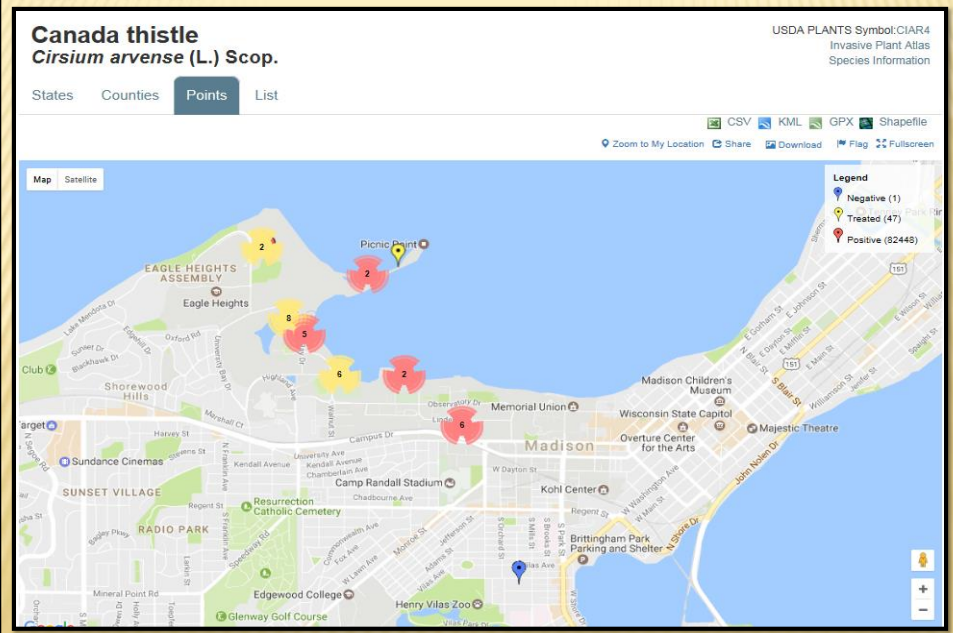
States Counties Points **List**

Search:

ID	User	Location	Date
4795969	Amy Adler Rosebud, Montana	Rosebud County, Montana, United States	11/28/2016
4791750	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	11/22/2016
4781445	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	11/16/2016
4780458	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	11/03/2016
4780422	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	11/03/2016
4780423	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	11/03/2016
4779867	Rex Griffiths Wayne County	Wayne County, Utah, United States	10/26/2016
4780139	Andi Porreca Humboldt Watershed CWMA	White Pine County, Nevada, United States	10/19/2016
4778246	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/14/2016
4778241	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/14/2016
4778236	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/14/2016
4778233	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/13/2016
4778229	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/13/2016
4778227	Josh Wagoner Montana Fish, Wildlife, & Parks	Cascade County, Montana, United States	10/13/2016

Showing 1 to 14 of 41,824 entries

THE GOAL...



Canada thistle
Cirsium arvense (L.) Scop.

Taxonomic Rank

Kingdom: Plantae
Phylum: Magnoliophyta
Class: Magnoliopsida
Subclass: Asteridae
Order: Asterales
Family: Asteraceae
Genus: *Cirsium*
Subject: *Cirsium arvense* (L.) Scop.

Other System Links

Plants: CIAR4
Bayer: CIRAR
GRIN: 100755
ITIS: 36335
NPDN Pest: PBFAWB
NPDN Host: 31702

Synonyms and Other Names


Other Common Names:
Californian thistle, creeping thistle, field thistle

Related Scientific Names:
Brexa arvensis (L.) Scop. (**Synonym**)
Brexa incana (L.) Scop. (**Synonym**)
Carduus arvensis (L.) Scop. (**Synonym**)
Cirsium incanum (L.) Scop. (**Synonym**)
Cirsium setosum (L.) Scop. (**Synonym**)
Serratula arvensis (L.) Scop. (**Synonym**)

References


Common Name Reference: USDA, NRCS. 2010. The PLANTS Database. National Plant Data Center, Baton Rouge, LA, USA.

Scientific Name Reference: USDA, NRCS. 2010. The PLANTS Database. National Plant Data Center, Baton Rouge, LA, USA.


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Tools and Training Materials



Database Tools


- Statistics
- Access/Download Point Data
- Recently Added Records
- View Invasive Species by Location
- View Invasive species by Congressional district
- Invasive Plant Status Report By State
- Advanced Query Tools
- Report Verifier Lookup

Mapping Tools

- Find a Location
- Latitude/Longitude Converter
- Geocode a Physical Address

Control Resources

- Plant Invaders of Mid-Atlantic Natural Areas
- General Principles for Controlling Nonnative Invasive Plants
- Weed Control Methods Handbook
- Prescriptions for Specific Nonnative Invasive Plants
- Control of Problem Weeds in Range and Pasture
- Invasive Plant Responses to Silvicultural Practices in the South
- Invasive Species Management Plans for Florida
- Herbicide Advice for Homeowners
- Tools of the Trade: Tool Reviews



Training Materials

- Reporting Negative Data in the Apps
 - Survey an area and didn't find certain species? Report that!
- EDDMapS Florida Training PowerPoint
- EDDMapS Florida Animals Training PowerPoint
- EDDMapS Florida Training Video
- EDDMapS Florida Animals Training Video
- EDDMapS Missouri River Watershed Coalition Training Video
- Mid-Atlantic Early Detection Network Training Video
- REDDy: Reptile Early Detection and Documentation Observer Training Course
- EDDMapS: Invasive Plant Mapping Handbook - **NEW**
- EDDMapS: Using the Bugwood Smartphone Apps - **NEW**
 - EDDMapS: Using the SEEDN Smartphone App - **NEW**
- How to Verify a Record in EDDMapS
- Florida EDDMapS minifyer
- Herbarium Collecting Guidelines
- Herbarium Mounting Guidelines

Bulk Data Resources

Resources for uploading data to us

- Data Collection Form - Adobe Acrobat
- Bulk Data Upload Procedure - Adobe Acrobat - **NEW**
- Bulk Data Entry Template - Microsoft Excel
- Bulk Data Entry Collecting Instructions - Microsoft Word
- Bulk Data Entry Collecting Instructions - Adobe Acrobat
- Data Dictionary

Resources for downloading data from us

- Dictionary for Downloaded Data - Adobe Acrobat - **NEW**

KEY POINTS

- ✗ Available Now!
- ✗ Fast, Free and Easy to use
- ✗ Aggregates data from other systems
- ✗ Working towards “complete” county level distribution
- ✗ EDRR implementation
- ✗ Online/Mobile forms, alerts and verified info

CREDITS AND ACKNOWLEDGMENTS

- ✕ **Chuck Bargerion- University of Georgia**
 - + Center for Invasive Species and Ecosystem Health
- ✕ **Jasmine Reimer- MT Department of Agriculture**
 - + Noxious Weed Trust Fund
- ✕ **Maps and Screenshots**
 - + EDDMapS.2017.Early Detection & Distribution Mapping System.The University of Georgia-Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/>; last accessed April 7, 2017.